

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.

Application Serial Number: 10/590,551
Source: IFWP
Date Processed by STIC: 9/1/06

ENTERED



IFWP

RAW SEQUENCE LISTING

DATE: 09/01/2006

PATENT APPLICATION: US/10/590,551

TIME: 12:09:28

Input Set : A:\Sequence listing.txt

Output Set: N:\CRF4\09012006\J590551.raw

```

3 <110> APPLICANT: Genomine, Inc.
4 POSTECH FOUNDATION
6 <120> TITLE OF INVENTION: Novel phytochrome-interacting protein and a use thereof
8 <130> FILE REFERENCE: OP05-1002
C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/590,551
C--> 10 <141> CURRENT FILING DATE: 2006-08-24
10 <150> PRIOR APPLICATION NUMBER: KR 10-2004-0013663
11 <151> PRIOR FILING DATE: 2004-02-27
13 <160> NUMBER OF SEQ ID NOS: 15
15 <170> SOFTWARE: KopatentIn 1.71
17 <210> SEQ ID NO: 1
18 <211> LENGTH: 29
19 <212> TYPE: DNA
20 <213> ORGANISM: Artificial Sequence
22 <220> FEATURE:
23 <223> OTHER INFORMATION: PCR primer
26 <400> SEQUENCE: 1
27 ggatccaaat gtcaggctct aggccgact 29
30 <210> SEQ ID NO: 2
31 <211> LENGTH: 30
32 <212> TYPE: DNA
33 <213> ORGANISM: Artificial Sequence
35 <220> FEATURE:
36 <223> OTHER INFORMATION: PCR primer
39 <400> SEQUENCE: 2
40 ctcgagctac ttgtttgctg cagcgagttc 30
43 <210> SEQ ID NO: 3
44 <211> LENGTH: 1455
45 <212> TYPE: DNA
46 <213> ORGANISM: Arabidopsis thaliana
48 <400> SEQUENCE: 3
49 atggagacca agaatgagaa ttctgatgtt tcacgggcag aggagtttaa aagtcaggcc 60
51 aacgaagctt ttaaagggtca caaatactcc agtgctattg atctatatac aaaagctatt 120
53 gaactcaaca gcaacaacgc tgtgtattgg gcaaactcgtg catttgctca cacaaaactg 180
55 gaggaatatg gcagtgcagt acaggatgca tcgaaggcca ttgaagttga ttcaagatac 240
57 tctaagggtc attacaggcg tgggtgctgcg tatcttgcca tgggaaaatt taaggatgcc 300
59 ttgaaggact tccaacaggc aaaaaggctt tctcctaata accctgatgc cacaagaaag 360
61 ctaaaggaat gtgagaaagc agtgatgaaa ctcaaatttg aagaagcaat ctctgtgcca 420
63 gtatctgaaa ggcgttcagt agctgagtcc attgacttcc atacaataga ggttgagcca 480
65 caatattctg gtgctagaat tgagggagag gaagttacct tagattttgt gaaaacgatg 540
67 atggaggatt ttaagaacca aaaaacattg cataaacggg atgcctatca aatcgtctta 600
69 cagactaggg aaatcttgct agcactgcct tctcttggtg atataagtgt tccacatggc 660
71 aaacatatca ctgtttgcgg tgacgttcat ggtcagttct acgatcttct caatatcttt 720

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73 gagcttaatg gcctcccttc ggaggagaac ccatacctat ttaatggcga ctttgtggac      780
75 agaggctcat tctccgttga gatcatcctc actttgtttg ctttcaagt catgtgccca      840
77 tcatccatat atctagccag aggaaacat gaaagcaaga gcatgaacaa aatttatggt      900
79 tttgagggtg aggttcggtc caagttgagt gaaaaattcg tggatctctt tgctgaagtt      960
81 ttctgttacc tcccgttggc tcatgttata aatgggaagg tcttcgtggg acatggaggt    1020
83 cttttcagtg ttgacggcgt gaaactctca gacatcagag ccattgacag attctgtgag    1080
85 ccaccagagg aaggactaat gtgtgaacta ttgtggagtg atcctcaacc tctccctgga    1140
87 agaggcccaa gcaagcgagg agttgggtcta tcatttggtg gagatgtgac aaagagggtt    1200
89 ttgcaagata acaatttaga tttgttggtc cggtcacatg aagtaaaaga tgaaggttat    1260
91 gaggttgaac atgacggtaa actcataact gtcttctctg cgccaaatta ctgtgatcag    1320
93 atgggtaata agggagcctt cattcgtttt gaagctcctg atatgaagcc aaacattggt    1380
95 acattctcag cagtgcctca tccgatgtg aagcctatgg catatgcaaa caactttctc    1440
97 aggatgttca actaa                                1455

100 <210> SEQ ID NO: 4
101 <211> LENGTH: 484
102 <212> TYPE: PRT
103 <213> ORGANISM: Arabidopsis thaliana
105 <400> SEQUENCE: 4
106 Met Glu Thr Lys Asn Glu Asn Ser Asp Val Ser Arg Ala Glu Glu Phe
107   1           5           10           15
109 Lys Ser Gln Ala Asn Glu Ala Phe Lys Gly His Lys Tyr Ser Ser Ala
110           20           25           30
112 Ile Asp Leu Tyr Thr Lys Ala Ile Glu Leu Asn Ser Asn Asn Ala Val
113           35           40           45
115 Tyr Trp Ala Asn Arg Ala Phe Ala His Thr Lys Leu Glu Glu Tyr Gly
116           50           55           60
118 Ser Ala Ile Gln Asp Ala Ser Lys Ala Ile Glu Val Asp Ser Arg Tyr
119   65           70           75           80
121 Ser Lys Gly Tyr Tyr Arg Arg Gly Ala Ala Tyr Leu Ala Met Gly Lys
122           85           90           95
124 Phe Lys Asp Ala Leu Lys Asp Phe Gln Gln Val Lys Arg Leu Ser Pro
125           100          105          110
127 Asn Asp Pro Asp Ala Thr Arg Lys Leu Lys Glu Cys Glu Lys Ala Val
128           115          120          125
130 Met Lys Leu Lys Phe Glu Glu Ala Ile Ser Val Pro Val Ser Glu Arg
131           130          135          140
133 Arg Ser Val Ala Glu Ser Ile Asp Phe His Thr Ile Glu Val Glu Pro
134 145           150           155           160
136 Gln Tyr Ser Gly Ala Arg Ile Glu Gly Glu Glu Val Thr Leu Asp Phe
137           165          170          175
139 Val Lys Thr Met Met Glu Asp Phe Lys Asn Gln Lys Thr Leu His Lys
140           180          185          190
142 Arg Tyr Ala Tyr Gln Ile Val Leu Gln Thr Arg Gln Ile Leu Leu Ala
143           195          200          205
145 Leu Pro Ser Leu Val Asp Ile Ser Val Pro His Gly Lys His Ile Thr
146           210          215          220
148 Val Cys Gly Asp Val His Gly Gln Phe Tyr Asp Leu Leu Asn Ile Phe
149 225           230           235           240
151 Glu Leu Asn Gly Leu Pro Ser Glu Glu Asn Pro Tyr Leu Phe Asn Gly

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152          245          250          255
154 Asp Phe Val Asp Arg Gly Ser Phe Ser Val Glu Ile Ile Leu Thr Leu
155          260          265          270
157 Phe Ala Phe Lys Cys Met Cys Pro Ser Ser Ile Tyr Leu Ala Arg Gly
158          275          280          285
160 Asn His Glu Ser Lys Ser Met Asn Lys Ile Tyr Gly Phe Glu Gly Glu
161          290          295          300
163 Val Arg Ser Lys Leu Ser Glu Lys Phe Val Asp Leu Phe Ala Glu Val
164 305          310          315          320
166 Phe Cys Tyr Leu Pro Leu Ala His Val Ile Asn Gly Lys Val Phe Val
167          325          330          335
169 Val His Gly Gly Leu Phe Ser Val Asp Gly Val Lys Leu Ser Asp Ile
170          340          345          350
172 Arg Ala Ile Asp Arg Phe Cys Glu Pro Pro Glu Glu Gly Leu Met Cys
173          355          360          365
175 Glu Leu Leu Trp Ser Asp Pro Gln Pro Leu Pro Gly Arg Gly Pro Ser
176          370          375          380
178 Lys Arg Gly Val Gly Leu Ser Phe Gly Gly Asp Val Thr Lys Arg Phe
179 385          390          395          400
181 Leu Gln Asp Asn Asn Leu Asp Leu Leu Val Arg Ser His Glu Val Lys
182          405          410          415
184 Asp Glu Gly Tyr Glu Val Glu His Asp Gly Lys Leu Ile Thr Val Phe
185          420          425          430
187 Ser Ala Pro Asn Tyr Cys Asp Gln Met Gly Asn Lys Gly Ala Phe Ile
188          435          440          445
190 Arg Phe Glu Ala Pro Asp Met Lys Pro Asn Ile Val Thr Phe Ser Ala
191          450          455          460
193 Val Pro His Pro Asp Val Lys Pro Met Ala Tyr Ala Asn Asn Phe Leu
194 465          470          475          480
196 Arg Met Phe Asn
200 <210> SEQ ID NO: 5
201 <211> LENGTH: 24
202 <212> TYPE: DNA
203 <213> ORGANISM: Artificial Sequence
205 <220> FEATURE:
206 <223> OTHER INFORMATION: PCR primer
209 <400> SEQUENCE: 5
210 ggatccatgg agaccaagaa tgag
213 <210> SEQ ID NO: 6
214 <211> LENGTH: 24
215 <212> TYPE: DNA
216 <213> ORGANISM: Artificial Sequence
218 <220> FEATURE:
219 <223> OTHER INFORMATION: PCR primer
222 <400> SEQUENCE: 6
223 ctcgagttag ttgaacatcc tgag
226 <210> SEQ ID NO: 7
227 <211> LENGTH: 28
228 <212> TYPE: DNA

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229 <213> ORGANISM: Artificial Sequence
231 <220> FEATURE:
232 <223> OTHER INFORMATION: PCR primer
235 <400> SEQUENCE: 7
236 ggatccgatg tcaggctcta ggccgact 28
239 <210> SEQ ID NO: 8
240 <211> LENGTH: 34
241 <212> TYPE: DNA
242 <213> ORGANISM: Artificial Sequence
244 <220> FEATURE:
245 <223> OTHER INFORMATION: PCR primer
248 <400> SEQUENCE: 8
249 gctgatcagc atggtttccg gagtcggggg tagt 34
252 <210> SEQ ID NO: 9
253 <211> LENGTH: 34
254 <212> TYPE: DNA
255 <213> ORGANISM: Artificial Sequence
257 <220> FEATURE:
258 <223> OTHER INFORMATION: PCR primer
261 <400> SEQUENCE: 9
262 cccggccgga ctaatatggc atcatcagca tcat 34
265 <210> SEQ ID NO: 10
266 <211> LENGTH: 27
267 <212> TYPE: DNA
268 <213> ORGANISM: Artificial Sequence
270 <220> FEATURE:
271 <223> OTHER INFORMATION: PCR primer
274 <400> SEQUENCE: 10
275 ctcgagtcaa gagattgctt cttcaaa 27
278 <210> SEQ ID NO: 11
279 <211> LENGTH: 27
280 <212> TYPE: DNA
281 <213> ORGANISM: Artificial Sequence
283 <220> FEATURE:
284 <223> OTHER INFORMATION: PCR primer
287 <400> SEQUENCE: 11
288 ggatccatgc cagtatctga aaggcgt 27
291 <210> SEQ ID NO: 12
292 <211> LENGTH: 24
293 <212> TYPE: DNA
294 <213> ORGANISM: Artificial Sequence
296 <220> FEATURE:
297 <223> OTHER INFORMATION: PCR primer
300 <400> SEQUENCE: 12
301 atggagacca agaatgagaa ttct 24
304 <210> SEQ ID NO: 13
305 <211> LENGTH: 24
306 <212> TYPE: DNA
307 <213> ORGANISM: Artificial Sequence

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Input Set : A:\Sequence listing.txt

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309 <220> FEATURE:
 310 <223> OTHER INFORMATION: PCR primer
 313 <400> SEQUENCE: 13
 314 ttagttgaac atcctgagaa agtt
 317 <210> SEQ ID NO: 14
 318 <211> LENGTH: 347
 319 <212> TYPE: PRT
 320 <213> ORGANISM: Arabidopsis thaliana
 322 <400> SEQUENCE: 14

323	Ser	Val	Pro	Val	Ser	Glu	Arg	Arg	Ser	Val	Ala	Glu	Ser	Ile	Asp	Phe
324	1				5					10					15	
326	His	Thr	Ile	Glu	Val	Glu	Pro	Gln	Tyr	Ser	Gly	Ala	Arg	Ile	Glu	Gly
327				20					25					30		
329	Glu	Glu	Val	Thr	Leu	Asp	Phe	Val	Lys	Thr	Met	Met	Glu	Asp	Phe	Lys
330			35					40					45			
332	Asn	Gln	Lys	Thr	Leu	His	Lys	Arg	Tyr	Ala	Tyr	Gln	Ile	Val	Leu	Gln
333		50					55					60				
335	Thr	Arg	Gln	Ile	Leu	Leu	Ala	Leu	Pro	Ser	Leu	Val	Asp	Ile	Ser	Val
336	65					70					75				80	
338	Pro	His	Gly	Lys	His	Ile	Thr	Val	Cys	Gly	Asp	Val	His	Gly	Gln	Phe
339				85						90				95		
341	Tyr	Asp	Leu	Leu	Asn	Ile	Phe	Glu	Leu	Asn	Gly	Leu	Pro	Ser	Glu	Glu
342			100						105				110			
344	Asn	Pro	Tyr	Leu	Phe	Asn	Gly	Asp	Phe	Val	Asp	Arg	Gly	Ser	Phe	Ser
345		115					120					125				
347	Val	Glu	Ile	Ile	Leu	Thr	Leu	Phe	Ala	Phe	Lys	Cys	Met	Cys	Pro	Ser
348		130					135					140				
350	Ser	Ile	Tyr	Leu	Ala	Arg	Gly	Asn	His	Glu	Ser	Lys	Ser	Met	Asn	Lys
351	145					150					155				160	
353	Ile	Tyr	Gly	Phe	Glu	Gly	Glu	Val	Arg	Ser	Lys	Leu	Ser	Glu	Lys	Phe
354				165					170					175		
356	Val	Asp	Leu	Phe	Ala	Glu	Val	Phe	Cys	Tyr	Leu	Pro	Leu	Ala	His	Val
357			180						185					190		
359	Ile	Asn	Gly	Lys	Val	Phe	Val	Val	His	Gly	Gly	Leu	Phe	Ser	Val	Asp
360			195						200				205			
362	Gly	Val	Lys	Leu	Ser	Asp	Ile	Arg	Ala	Ile	Asp	Arg	Phe	Cys	Glu	Pro
363		210					215					220				
365	Pro	Glu	Glu	Gly	Leu	Met	Cys	Glu	Leu	Leu	Trp	Ser	Asp	Pro	Gln	Pro
366	225					230					235				240	
368	Leu	Pro	Gly	Arg	Gly	Pro	Ser	Lys	Arg	Gly	Val	Gly	Leu	Ser	Phe	Gly
369				245						250				255		
371	Gly	Asp	Val	Thr	Lys	Arg	Phe	Leu	Gln	Asp	Asn	Asn	Leu	Asp	Leu	Leu
372			260						265				270			
374	Val	Arg	Ser	His	Glu	Val	Lys	Asp	Glu	Gly	Tyr	Glu	Val	Glu	His	Asp
375			275					280					285			
377	Gly	Lys	Leu	Ile	Thr	Val	Phe	Ser	Ala	Pro	Asn	Tyr	Cys	Asp	Gln	Met
378		290					295					300				
380	Gly	Asn	Lys	Gly	Ala	Phe	Ile	Arg	Phe	Glu	Ala	Pro	Asp	Met	Lys	Pro
381	305					310					315				320	

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VERIFICATION SUMMARY

PATENT APPLICATION: US/10/590,551

DATE: 09/01/2006

TIME: 12:09:29

Input Set : A:\Sequence listing.txt

Output Set: N:\CRF4\09012006\J590551.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application No

L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date